

# Mineral Industry Surveys

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## IRON ORE IN JANUARY 2007

U.S. mine production of iron ore in January 2007, on a daily average basis, was 3% greater than that of the prior month, according to the U.S. Geological Survey. Average daily production, at 131,000 metric tons per day (t/d), was 3,200 t/d greater than that of December 2006.

Average daily shipments in January 2007, at 88,500 t/d, were 43% less than those of December. Mine stocks at the end of January were 1.3 million metric tons (Mt) greater than the stocks held on December 31, a 20% increase.

U.S. imports of iron ore in December 2006 were 24% greater than exports, with net imports at 138,000 metric tons (t).

**Exploration and Development.**—Canada's New Millennium Capital Corp. (See Iron Ore in March 2006.) was considering supplementing its planned 15-million-metric-ton-per-year (Mt/yr) pellet operation with an additional 7 to 8 Mt/yr of concentrate production. Cost estimate for the LabMag project, prior to bankable feasibility and the addition of the concentrate product, was \$2.75 billion, which included a slurry pipeline, port terminal at Pointe Noire, Quebec, and the pelletizing plant with two pelletizing lines of 7.5 Mt/yr each (Metal Bulletin, 2007).

Consolidated Thompson Iron Mines Limited (Canada) announced the company had opted not to buy Wabush Mines (operated by Cleveland-Cliffs Inc) and continued with additional studies to expand the planned Bloom Lake operation in Quebec. Consolidated Thompson had completed a bankable feasibility study in April 2006 for a 12.5-Mt/yr ore mining operation with capital costs at start-up of \$270 million, with production beginning in late 2008 for a mine life of greater than 40 years. High-grade concentrate would be exported in Capesize vessels from a port on the St. Lawrence River to Asian customers (Garside, 2007). (Update: Consolidated Thompson later reopened negotiations on the purchase of Wabush Mines.)

**World Production.**—According to Ukrudprom, the association of mining enterprises in Ukraine, iron ore exports for 2006 increased 2% to 19.9 Mt from 2005 levels. Sinter ore

increased 9% to 7.3 Mt, and concentrates increased 13.4% to 4.0 Mt, while pellets decreased 10% to 8.6 Mt (Interfax, 2007).

Rescuers at China's Haolaigou Iron Ore Mine in Baotou were evacuated when the mine's water levels rose. Six miners had been rescued from the flooded mine, but 29 miners remained trapped (Washington Times, The, 2007).

**Domestic Environmental Issues.**—Cleveland-Cliffs sold the Republic Mine, closed since 1996, and adjacent property. Neither the buyer nor price was disclosed. A final site cleanup plan had been approved by the Michigan Department of Environmental Quality in December 2006. The sales agreement did not include the 931-hectare Republic Wetlands Preserve (Skillings Mining Review, 2007).

**Transportation.**—In spite of a continued dredging crisis, shipments of iron ore, the largest single commodity by weight moved in Great Lakes vessels for 2006, totaled 45.4 Mt, 2% greater than in 2005. This was also a 2% increase from average annual figures for the 2001-05 period (Lake Carriers' Association, 2007). The last boat of the 2006-07 shipping season cleared the Poe Lock early on January 16. The locks were scheduled to be closed until March 25 (Masson, 2007).

## References Cited

- Garside, Ben, 2007, Consolidated Thompson focuses on Asian buyers for Bloom Lake ore project: Metal Bulletin, no. 8979, January 22, p. 25.  
Interfax, 2007 (January 19), Ukraine ups iron ore exports 2.1% in 2006: Interfax. (Accessed January 22, 2007, via <http://www.interfax.ru>.)  
Lake Carriers' Association, 2007, Iron ore shipments from Great Lakes and Seaway ports to Great Lakes destinations—2001-2006 and 5-year average: Lake Carriers' Association, February 6, 2 p.  
Masson, Jerry, 2007 (January 16), Soo Locks closing: Great Lakes & Seaway Shipping News. (Accessed April 10, 2007, via <http://www.boatnerd.com>.)  
Metal Bulletin, 2007, New Millennium may add 7-8m tpy: Metal Bulletin, no. 8979, January 22, p. 25.  
Skillings Mining Review, 2007, Cliffs sells Republic Mine: Skillings Mining Review, v. 96, no. 2, February, p. 20.  
Washington Times, The, 2007 (January 22), China closes mines, hopes rescuers succeed: The Washington Times. (Accessed January 23, 2007, at <http://www.washingtontimes.com/upi/20070122-031603-3648r.htm>.)

TABLE 1  
U.S. PRODUCTION AND SHIPMENTS OF IRON ORE<sup>1, 2</sup>  
(Exclusive of ore containing 5% or more of manganese)

(Thousand metric tons)

Period	Production		Shipments	
	Monthly	Year to date	Monthly	Year to date
2006:				
January	4,600	4,600	3,600	3,600
February	3,820	8,420	953	4,550
March	4,600	13,000	2,330	6,880
April	4,220	17,200	5,020	11,900
May	4,750	22,000	5,020	16,900
June	4,450	26,400	5,120	22,000
July	4,710	31,100	5,490	27,500
August	4,780	35,900	5,370	32,900
September	4,610	40,500	5,280	38,200
October	4,440	45,000	4,420	42,600
November	3,920	48,900	4,430	47,000
December	3,970	52,900	4,800	51,800
2007, January	4,070	4,070	2,740	2,740

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Excludes byproduct ores.

TABLE 2  
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE IN JANUARY<sup>1, 2</sup>

(Thousand metric tons)

State	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
	2007	2006	2007	2006	2007	2006
Michigan	855	1,020	820	1,020	1,830	1,670
Minnesota	3,210	3,580	1,920	2,570	6,250	5,080
Total	4,070	4,600	2,740	3,600	8,080	6,750

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Excludes byproduct ore.

<sup>3</sup>Includes rail and vessel.

<sup>4</sup>Includes usable (marketable) material at mines, concentrators, pelletizing plants, and loading docks. Excludes stocks of crude ore at mine and concentrates at agglomerating complexes.

TABLE 3  
CANADA: SHIPMENTS OF IRON ORE<sup>1,2</sup>

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
2005:				
December	1,890	1,160	9	3,050
Year total	19,100	11,200	106	30,400
2006:				
January	1,010	705	10	1,720
February	951	730	10	1,690
March	1,210	730	7	1,950
April	1,850	1,180	8	3,030
May	1,670	1,610	12	3,280
June	1,550	1,180	10	2,740
July	2,040	1,220	8	3,270
August	1,740	1,740	8	3,490
September	949	1,340	8	2,300
October	2,280	963	10	3,250
November	2,590	1,010	8	3,610
December	2,040	1,250	6	3,290
Year total	19,900	13,600	105	33,600

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes production from steel plant waste oxides.

Source: Natural Resources Canada, December 2006.

TABLE 4  
PRODUCTION OF PIG IRON AND RAW STEEL IN THE UNITED STATES, BY TYPE OF  
FURNACE<sup>1</sup>

(Thousand metric tons)

Period	Pig iron production, blast furnace		Raw steel production			
	Monthly	Year to date	Basic oxygen furnace <sup>2</sup>		Electric furnace	
			Monthly	Year to date	Monthly	Year to date
2005, December	2,840	36,300	3,380	41,000	4,420	52,300
2006:						
January	3,190	3,190	3,560	3,560	4,530	4,530
February	3,100	6,300	3,470	7,030	4,250	8,780
March	3,420	9,710	3,800	10,800	5,070	13,900
April	3,280	13,000	3,640	14,500	4,870	18,700
May	3,460	16,500	3,850	18,300	5,060	23,800
June	3,330	19,800	3,790	22,100	4,790	28,600
July	3,210	23,000	3,660	25,800	4,800	33,400
August	3,200	26,200	3,620	29,400	4,840	38,200
September	3,220	29,400	3,670	33,100	4,750	43,000
October	3,090	32,500	3,460	36,500	4,640	47,600
November	2,780	35,300	3,080	39,600	4,330	51,900
December	2,640	37,900	2,860	42,500	4,180	56,100

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Raw steel production figures for the basic oxygen process are usually greater than the corresponding pig iron production figures because scrap is routinely melted in the basic oxygen furnace together with the molten pig iron.

Source: American Iron and Steel Institute.

TABLE 5  
U.S. EXPORTS OF IRON ORE, BY COUNTRY OF DESTINATION AND TYPE<sup>1, 2</sup>

(Thousand metric tons)

Country of destination and type of product	2006						Total
	2005	1st quarter	2nd quarter	3rd quarter	December	4th quarter	
Algeria	--	--	--	252	24	88	340
Canada	11,200	998	2,370	2,410	545	1,830	7,610
China	282	--	100	--	--	--	100
Mexico	30	13	11	10.00	10	180	215
Slovakia	237	--	--	--	--	--	--
United Kingdom	78	--	--	--	--	--	--
Other	8	1	5	2	--	3	10
Total	11,800	1,010	2,480	2,670	579	2,110	8,270
Pellets	11,600	925	2,420	2,640	576	2,080	8,060
Concentrates	89	2	53	2	1	2	59
Direct shipping ores	60	2	8	20	1	17	47
Other	11	83	6	7	(3)	7	103
Total	11,800	1,010	2,480	2,670	579	2,110	8,270

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY COUNTRY AND TYPE<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

Country of origin and type of product	2006					2005
	December		Year to date			January-December
	Thousand metric tons	Value <sup>3</sup> (thousand dollars)	Thousand metric tons	Value <sup>3</sup> (thousand dollars)	Value <sup>3</sup> (dollars per ton)	Thousand metric tons
Bahamas, The	--	--	--	--	--	140
Brazil	248	12,000	4,530	228,000	50.29	4,180
Canada	463	26,600	6,240	359,000	57.44	7,510
Chile	--	--	283	14,000	49.35	270
Finland	3	110	9	331	36.78	9
Greece	--	--	15	386	25.73	49
Mexico	3	68	17	440	25.88	41
Peru	--	--	52	1,710	32.90	33
Russia	--	--	--	--	--	99
Sweden	--	--	(4)	6	342.88	133
Trinidad and Tobago	--	--	299	6,870	22.97	375
Venezuela	--	--	23	439	19.09	148
Other	(4)	6	8	193	24.13	12
Total	717	38,800	11,500	611,000	53.21	13,000
Concentrates	131	5,210	2,380	96,400	40.54	1,250
Coarse ores	--	--	--	--	--	56
Fine ores	81	3,620	2,450	106,000	43.36	4,880
Pellets	499	29,800	6,620	407,000	61.50	6,730
Other agglomerates	3	68	17	440	25.88	74
Roasted pyrites	3	116	10	387	38.70	8
Total	717	38,800	11,500	611,000	53.21	13,000

-- Zero.

<sup>1</sup>Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Customs value. Excludes international freight and insurance charges.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN DECEMBER 2006<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Country of origin	Type of product						Total
	Concentrates	Coarse ores	Fine ores	Pellets	Briquettes and other agglomerates	Roasted pyrites	
Brazil	82	--	81	85	--	--	248
Canada	49	--	--	414	--	--	463
Finland	--	--	--	--	--	3	3
India	--	--	--	--	--	(3)	(3)
Mexico	--	--	--	--	3	--	3
Romania	--	--	--	--	--	(3)	(3)
Total	131	--	81	499	3	3	717

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY<sup>1</sup>

Country of origin	2006					2005
	December		Year to date			January-December
	Thousand metric tons	Value <sup>2</sup> (thousand dollars)	Thousand metric tons	Value <sup>2</sup> (thousand dollars)	Value <sup>2</sup> (dollars per ton)	Thousand metric tons
Brazil	85	5,340	1,650	107,000	64.92	1,900
Canada	414	24,400	4,940	299,000	60.53	4,730
Russia	--	--	--	--	--	99
Trinidad and Tobago	--	--	15	965	64.33	--
Venezuela	--	--	23	439	19.09	--
Total	499	29,800	6,620	407,000	61.50	6,730

-- Zero.

<sup>1</sup>Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Customs value. Excludes international freight and insurance charges.

Source: U.S. Census Bureau.

TABLE 9  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE,  
BY CUSTOMS DISTRICT<sup>1, 2</sup>  
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district (code no.)	December	January-December	
	2006	2006	2005
Baltimore, MD (13)	209	3,930	3,440
Buffalo, NY (09)	--	1	6
Charleston, SC (16)	--	1	2
Chicago, IL (39)	156	1,740	1,400
Cleveland, OH (41)	244	3,040	3,090
Detroit, MI (38)	29	131	258
Great Falls, MT (33)	--	--	(3)
Houston-Galveston, TX (53)	--	50	78
Los Angeles, CA (27)	--	(3)	(3)
Mobile, AL (19)	--	5	66
New Orleans, LA (20)	72	2,550	4,610
New York City, NY (10)	--	--	1
Nogales, AZ (26)	3	25	18
Ogdensburg, NY (07)	--	(3)	(3)
Philadelphia, PA (11)	3	9	22
San Francisco, CA (28)	--	--	4
San Juan, PR (49)	--	--	6
St. Louis, MO (45)	--	(3)	--
Wilmington, NC (15)	--	(3)	--
Total	717	11,500	13,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10  
U.S. IMPORTS FOR CONSUMPTION OF PELLETS,  
BY CUSTOMS DISTRICT<sup>1</sup>

(Thousand metric tons)

Customs district (code no.)	December	January-December	
	2006	2006	2005
Baltimore, MD (13)	141	1,660	1,440
Chicago, IL (39)	12	291	53
Cleveland, OH (41)	244	3,040	3,080
Detroit, MI (38)	29	131	258
Houston-Galveston, TX (53)	--	35	68
Mobile, AL (19)	--	--	61
New Orleans, LA (20)	72	1,470	1,770
Total	499	6,620	6,730

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.